

TWO NEW NORTH AMERICAN CECIDOMYIÆ.

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In August, 1866, being in Newport, Rhode Island, I observed a young tree of *Gleditchia triacanthos*, the leaves of which were quite conspicuously deformed. The single leaflets were folded in such a way as to assume the appearance of a pod, proportionate to their own size, or of a smaller pod, taking up only a part of the leaflet. (The outer side of the pod was the underside of the leaflet). Each pod contained two or three pale orange larvæ of *Cecidomyia*, with a very delicate, narrow breastbone. About the 10th of August, the gallflies began to escape in large numbers, the pupa-skins remaining attached to the outside of the gall. At the same time I noticed that the young terminal leaves on the branches with their leaflets as yet folded, began to show the characteristic pod-like swelling. This soon led to the discovery, that every one of these young leaflets contained two or three very small, whitish larvæ of *Cecidomyia*, evidently in the first stage of their growth. Were these larvæ the produce of the newly escaped gallflies, which might have inserted their eggs in the fold of the unopened leaflets and thus prevented them from unfolding? This question, as well as the further development of this (apparently) second brood of larvæ, I have not been able to investigate.

The gall seems to be exactly similar to that of *Cecid. pseudoaccaciæ*, Fitch. (Reports, Vol. I, N. 331). But the gallfly, if Dr. Fitch's description be correct, is evidently different. It belongs to the genus *Cecidomyia* in the restricted sense of Loew and Winnertz, as it has the same number of joints in the antennæ of both sexes (compare *Monographs of the N. A. Diptera*, vol. I, p. 175), and, moreover, to the first sub-division of the genus, in which the female antennæ have sessile joints.

Cecidomyia gleditchiæ, n. sp. ♂ ♀. Head blackish, a small tuft of pale hairs on the labrum: antennæ 2+12 jointed in both sexes; the ♂ antenna is long enough to reach a little beyond the root of the wing, mouiliform (the single joints being connected by short pedicels), verticillate-pilose (the hairs being somewhat longer than the length of the globular joint together with its pedicel); the ♀ antennæ hardly reach beyond the root of the wings; joints subglobular, sessile and hence, the verticillate character of the pubescence less apparent than in the male; hairs also shorter. Thorax blackish, the three stripes

indicated by a grayish efflorescence and their intervals by two black lines, which bear a longitudinal row of pale hairs; in the female, the underside of the thorax is reddish: feet gray, with a whitish lustre; wings gray, darker along the costal vein; neuration like fig. 1 in Monogr. etc. I. p. 174. Abdomen blackish, with pale hairs; in the female it is red, each segment bearing a transverse black stripe on the back. Length about 0.065 of an inch. This description was drawn from mature living specimens.

The immature specimens had a reddish thorax, pale brownish above, without indication of stripes; a black fringe of short hairs or scales along the anterior margin of the mesothorax was very apparent in the male, less distinct in the female.

Some time ago Mr. Wm. Couper in Quebeck, sent me some specimens of a very pretty gall, which he discovered on *Spiræa salicifolia* and which I take occasion to describe here.

This gall, the as yet unknown insect of which I propose to call *Cecid. salicifoliæ* has, like the preceding gall, the shape of a pod, formed by the folding of the leaf along the midvein, and the bulging out of the sac thus formed, the outer margin of which is closely soldered. The largest of the pods which I have before me is a little over half an inch long and absorbs the whole leaf, except a narrow margin, projecting above the seam of the pod; the smaller pods occupy only a portion of the the leaf. Although the galls were dry, when they reached me, the larvæ in them were still alive.

I found a similar gall in Nahant in August, 1864, quite abundantly on *Spiræa tomentosa*. The young terminal leaves of this plant were folded up so as to assume a pod-like appearance and enclosed larvæ of *Cecidomyia*, but I am not certain whether these larvæ belong to the same species as that which deforms *Spiræa salicifolia* in Canada.

Among the European *Cecidomyiæ* only one is known to affect the genus *Spiræa*; it is *Cec. ulmarie* Bremi, which produces wartlike galls on the leaves of *Spiræa ulmaria*. (Winnertz, Linn. Entom. Vol. VIII. p. 240.)